SWBT Missouri
Comparison of Actual Wholesale Costs to Arbitration Cost Levels

		SWBT Actual Wholesale Costs (1)	Arbitration Award Hypothetical Costs (2)
1	Loop (per line/month)	$ 25.45	$ 16.88
2	Local Switching per local switching MOU	$ .004909	$ .003262
3	Transport per transport MOU	$ .002576	$ .000350

(1) Cost per line from SWBT's Actual Cost Study which represents updated 1996 Missouri data. Includes all regulated actual book costs. These costs differ from actual costs submitted in my original, pre-filed testimony in this proceeding because they include the following Commission mandated changes: Cost of Capital (10.69); Income Tax rate (38.36). This column also reflects adjustments to SWBT's total actual costs to remove retail costs per a literal interpretation of the FCC's methodology identified in CC Docket No. 96-98, Paragraphs 917-919 and 928, plus adjustments to remove intraLATA toll access expenses. While SWBT does not concur with or embrace the FCC's methodology, the results are conservative in that a maximum amount of retail costs are excluded. Finally, actual cost depreciation amounts also reflect booked depreciation.

(2) Award Costs were developed using hypothetical costs and rates (ordered in arbitration by the Missouri PSC in their Final Order) divided by customer usage totals from the Actual Cost Study. Line 2, Local Switching per local switching MOU includes port costs.

As shown above, and in the affidavit of Mr. William C. Bailey, filed on behalf of SWBT, the UNE revenues permitted by the PSC Order are not sufficient to recover these costs. In addition to the inappropriateness of not allowing SWBT to recover the actual book costs it has devoted to providing service, the effect of the Arbitration Award will be to seriously disrupt the existing rate design adopted by the Missouri PSC and possibly jeopardize Universal Service.

Further Affiant sayeth not.

The information contained in this affidavit is true and correct to the best of my knowledge and belief.

Paul L Cooper

PAUL L. COOPER

SWORN TO AND SUBSCRIBED before me on the 19th day of August, 1997.

Janet R. Viehland

Notary Public - State of Missouri

JANET R. VIEHLAND
Notary Public-Notary Seal
STATE OF MISSOURI
FRANKLIN COUNTY
My Commission Expires OCT 29, 1998

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of AT&T Communications of the Southwest, Inc.'s Petition for Arbitration pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Southwestern Bell Telephone Company	)	Case No. TO-97-40
Petition of MCI Telecommunications Corporation and its Affiliates, Including MCImetro Access Transmission Services, Inc. for Arbitration and Mediation Under the Federal Telecommunications Act of 1996 of Unresolved Interconnection Issues with Southwestern Bell Telephone Company	)	Case No. TO-97-67

AFFIDAVIT OF ALFRED E. KAHN

I, Alfred E. Kahn, of lawful age, being dully sworn, depose and state:

1. My name is Alfred E. Kahn. I am the Robert Julius Thorne Professor of Political Economy, Emeritus, Cornell University and Special Consultant with National Economic Research Associates, Inc. (NERA). I have been Chairman of the New York State Public Service Commission and of the Civil Aeronautics Board; and in my capacity as Advisor to President Carter on Inflation, I participated actively in the successful efforts of his Administration to deregulate both the trucking industry and the railroads. I am the author of the two-volume *The Economics of Regulation*, reprinted in 1988 by MIT Press, and have written and testified extensively in the area of direct economic regulation, and particularly of the telecommunications, railroad, trucking, airline and electric power industries.

2. I am informed by Southwestern Bell Telephone Company (SWB) that the rates for unbundled network elements recently established by the Commission would recover less than 50% of its revenue requirements, as traditionally determined in Missouri, if all of its current business were to be transacted in the form of such sales. I am not in a position to assess the validity of that factual assertion but examine its implications and consequences, as SWB has asked me to do, on the assumption that it is roughly correct.

3. As I understand it, roughly half of the difference between what the company refers to as its "actual costs" of providing those elements and the TELRIC version on the basis of which the Commission has set the rates is explained by the fact that TELRIC, by its very nature, includes no provision for the Company's recovery of return on and of the net book value of its present plant or historical rate base. More precisely, it is explained by the difference between the capital costs incorporated in TELRIC and the capital costs as they would have been determined under traditional prudent investment rate base/rate of return regulation—which difference the incumbent local exchange companies (ILECs) sometimes refer to as "legacy." Approximately the other half, I am informed, is attributable to differences between the Company's estimated TELRIC and the one adopted by the Commission. Since I have, similarly, not been in a position to assess the latter difference in the context of these specific proceedings, I will limit my comments on that source of the difference to some general comments—based on my understanding of the issues as they have emerged in other regulatory jurisdictions—on the apparent reasons for it and the implications of those reasons for the Commission's decision of which to adopt as the basis for rates.

I. "ACTUAL" VERSUS HYPOTHETICAL TELRICS

4. The main reason, in general terms, why the estimates of TELRIC by ILECs tend to run substantially higher than those submitted by commission staffs and intervenors is that the estimates by the companies are heavily weighted by their actual experience—actual fill factors, for example—whereas the estimates by their opponents tend to hypothesize ideally efficient provision of those services by a new entrant working in some sense from scratch (although typically constrained by the FCC's injunction that the hypothetical new plant have the same configuration of wire centers as that of the incumbent company). Frequently proponents of the lower estimates assert, in justification, that the estimates by the ILECs reflect and incorporate inefficiencies in their current operations.

5. The claim that ILEC networks embody inefficiencies may or may not be valid. But for a commission therefore to set rates for unbundled network elements or any other telecommunications services on the basis of its hypothetical determinations of what costs would be if they were efficiently incurred by a new entrant is objectionable for several reasons.

6. First, in the presence of continuous technological progress, any plant installed in the past—even if it were the most efficient possible at the time—will in a sense be less efficient than one constructed today, using the best technology currently available. It does not follow that efficient prices would constantly be set at the level of those current costs or that is the level to which effective competition would drive prices. On the contrary, in a world of continuous technological progress, it would be irrational for firms constantly to update their facilities in order *completely* to incorporate today's lowest-cost technology, as though starting from scratch, the moment those costs fell below prevailing market prices: investments made today, totally

embodying the most modern technology available currently, would instantaneously be outdated tomorrow and, in consequence, never earn a return sufficient to justify the investments in the first place. For this reason, as Professor William J. Fellner pointed out many years ago,[1] even firms in competitive industries would systematically practice what he termed "anticipatory retardation": they would adopt the most modern technology only when the progressively declining real costs had fallen sufficiently below currently prevailing prices to offer them a reasonable expectation of earning a return on those investments over their entire economic lives.

7. Two other ways of putting this proposition would be that

- competitive prices in such situations typically exceed the total service long-run incremental cost of a completely new plant by a substantial margin; or
- firms would incur the heavy sunk costs of investing in totally new facilities, embodying the most recent technology from the ground up, only if prevailing market prices were high enough to provide rapid depreciation of those costs and rates of return that Professor Jerry Hausman has estimated would have to be two to three times current costs of capital.[2]

8. There is every reason to believe, therefore, that the tendency for the various models introduced in arbitration and state regulatory proceedings purporting to measure TELRIC of what I have termed the "blank slate" variety—TELRIC-BS—coming out consistently lower

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[1] William J. Fellner, "The Influence of Market Structure on Technological Progress," in American Economic Association, *Readings in Industrial Organization and Public Policy* (Homewood: Richard D. Irwin, 1958), as described also in my *The Economics of Regulation*, Vol. 1, pp. 199-200, note 91.

[2] Affidavit of USTA Comments, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-98, May 16, 1996. See also Richard Schmalensee and William E. Taylor, "Economic Aspects of Access Reform: A Reply," NERA USTA Reply Comments, CC Docket No. 96-262, February 14, 1997. The FCC has, in terms that could be characterized only as grudging, recognized the possibility that it would be necessary to incorporate higher-than-customary rates of depreciation and return in these calculations for this very reason. FCC 96-325, First Report and Order, In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-98, released August 8, 1996, par. 686.

than the estimates by the LECs of their own incremental costs is the consequence, at least in part, of their applying traditional regulatorily-determined rates of depreciation and costs of capital, which would, for the reasons we have already given, be grossly insufficient to induce investors to construct entirely new systems from scratch. For this very reason, considerations of economic efficiency and efficient competition alone *require* that the prices charged to competitors be based upon the LECs' *actual* costs; to the extent competitors can provide the inputs more efficiently than the LECs, this will fully preserve their incentive to do so and thereby promote efficient facilities-based entry.

9. Second, it would involve extreme regulatory presumption. In effect, a commission adopting the standard would be declaring "we will determine not what your costs *are* but what they *ought to be*; why should we bother to let the messy and uncertain competitive process determine the outcome when we can do a better job of determining at the very outset what that outcome would be?"

10. Third, it would depart from the undeniable historical regulatory practice of providing public utility companies with a reasonable opportunity to recover the costs they actually incur, except to the extent that commissions can conscientiously determine costs were incurred imprudently.

11. Fourth, it is not how competition works. Prices under competition tend to be set on the basis of the actual costs of incumbent firms, and they should be: the economic purpose of setting prices at incremental costs is to inform buyers—and make them pay—the cost that society will *actually* incur if they purchase more or would *actually* save if they reduced their purchases, entirely or partially. These can only be the (incremental) costs of the supplier whose

prices are being set, not some hypothetical ideal producer.[3] *Moreover, such prices give challengers the proper target at which to shoot*—the proper standard to meet or beat and the proper reward if they succeed. If they can achieve costs lower than that, they will enter and *in the process* (which setting prices directly at TELRIC-BS would short-circuit) beat prices down to efficient levels.

12. Fifth, where competition is insufficiently effective, the majority of State regulatory commissions have moved from essentially cost-plus or rate base/rate of return regulation to rate caps, which typically incorporate an explicit (or, in the case of price freezes, implicit) downward productivity adjustment, calculated as fairly as possible, to force costs and prices down to efficient levels.

13. This, incidentally, is the course upon which the FCC has now settled in its policy for setting carrier access fees. Confronted with a choice between what it called a "prescriptive" and a "market-driven" approach, the former of which would involve its proceeding itself to set rates at efficient, TELRIC-BS-like levels, the latter leaving it to the forces of competition, has

[3] In further demonstration of the mismatch between the hypothetical "measure" and the way incremental costs are actually incurred in the real world, one employer of these models attributed to telephone service only one quarter of the cost of the poles and other conduits, on the ground that in a system newly constructed from scratch, a much larger portion would be used for electric and cable service than is actually used today. The blank slate assumption evidently requires, logically, that these other, non-telephone companies be assumed to be writing on such a slate as well. Hatfield Model Release 3.1, *Model Description*, Hatfield Associates, Inc., February 28, 1997, Appendix B, page 52. One wonders why the witness did not carry this scenario to the logical conclusion by positing entire urban areas with streets and all other public facilities built on a green field in such a way as to minimize all the costs of all the services they would be used to provide; and a country with its entire educational system re-designed so as to provide—or to *have* provided—a labor force optimally adapted to today's configuration of technologies and consumer demands. It would be difficult to conceive of a more apt illustration of Keynes' sage observation that "in the long run we are all dead."

explicitly opted for the second—while leaving it to indexed price caps, with a productivity factor, to produce similar results where competition is not sufficiently present:

> We decided that adopting a primarily market-based approach to reforming access charges will better serve the public interest than attempting immediately to prescribe new rates for all interstate access services based on the long-run incremental costs or forward-looking economic cost of interstate access services. Competitive markets are superior mechanisms for protecting consumers by ensuring that goods and services are provided to consumers in the most efficient manner possible and at prices that reflect the cost of production. Accordingly, where competition develops, it should be relied upon as much as possible to protect consumers and the public interest. In addition, using a market-based approach should minimize the potential that regulation will create and maintain distortions in the investment decisions of competitors as they enter local telecommunications markets.[4]

> competition will do a better job of determining the true economic cost of providing such services. As competitive entry becomes increasingly possible, IXCs that now purchase interstate switched access services from incumbent LECs will be able to bypass those services where the prices (interstate access charges) do not reflect the economic costs of providing the underlying services.[5]

14. Beginning price caps have typically been set at levels determined to be just and reasonable under traditional regulatory practices. Forward-looking cost estimates such as TELRIC-BS are similar to a price cap productivity target in that they are a statement by a regulator as to how much more efficient the ILEC can be than is reflected in its current rates. The big difference between the two is, of course, that the price cap prediction calls for gradual improvement, while the prediction implicit in the forward-looking cost estimates requires an immediate one. Viewed in this context, the more than 50% gap between SWB's "actual costs"

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[4] First Report and Order, In the Matter of Access Charge Reform, Price Cap Performance Review for Local Exchange Carriers, Transport Rate Structure and Pricing and End User Common Line Charges, CC Docket Nos. 96-262, 94-1, 91-213, 95-72, released May 16, 1997, par. 263.

[5] *Ibid.*, par. 365. In an accompanying decision, the Commission revised its price cap formula for *these* charges to incorporate a higher annual productivity offset.

and the Commission's TELRIC (which gap, however, combines the effect of legacy *and* the difference between the Commission's and SWB's estimates of TELRIC) is astounding by price cap standards. For example, with the 3 percent per year productivity target that AT&T's prices were formerly subjected to, it would take more than 23 years for SWB to reduce costs sufficiently to close it.

15. Finally, there is there the inevitably discouraging effect that rates for unbundled inputs set at the estimated minimum costs of an efficient new entrant would have on facilities-based competitive entry. Why should any entrant bother to take the risks of constructing its own facilities if it can purchase use of the facilities of the incumbent at prices set by a commission and staff operating under the principle of setting those rates at the lowest possible level of costs of an ideally efficient new entrant? In this most fundamental sense, therefore, the Commission's proposed basis for pricing SWB's network elements is not only fatally prescriptive but actually anti-competitive.

II. THE "LEGACY"

16. The other major difference between what SWB characterizes as its "actual costs" and the rates for unbundled elements prescribed by the Commission is that TELRIC rates—or any rates set at present and forward-looking costs only—can never, by their very nature, incorporate explicit provisions for recovery of sunk or historically incurred costs. They do, of course, include the capital costs associated with future investments; but where, as is generally recognized, the depreciation rates that regulators have historically permitted the telephone companies to recover have fallen substantially short of what economic depreciation would have dictated and the net, depreciated book value of their investments is in consequence considerably

above their market value, the capital costs incorporated in TELRIC will necessarily fall correspondingly below the capital costs associated with book investments. The difference between the two is the so called "legacy."

17. There has been a raging dispute over the last several years, particularly with respect to the electric utilities, about whether the companies are or are not, should or should not be entitled to recover those sunk costs prudently incurred in fulfillment of their public utility obligations and recovered over the past only at rates prescribed by their regulators. There are two bases for my firm conviction that regulated utility companies are indeed entitled to such recoveries. One basis is simple fairness. The other, closely related, is economic.

18. I believe it is indisputable that there has been a general understanding, under original cost or prudent investment regulation, such as been practiced in the great majority of our jurisdictions, including Missouri, over many decades, that the utility companies, in exchange for thoroughgoing regulation and the undertaking of costly public service responsibilities, were entitled to a reasonable opportunity to recover their prudently incurred costs. To take the latest recognition of this fact that I have encountered, a new Pennsylvania statute providing for restructuring of its electric utility industry declares

> public utilities generally have had an obligation to serve customers within their defined service territories; consistent with that obligation, have undertaken long-term investments in generation, transmission and distribution facilities in order to meet the needs of their customers; and have entered into long-term power supply agreements as required by federal law. In many instances, these investments and agreements have created costs which may not be recoverable in a competitive market.[6]

[6] House Bill No. 1509, Session of 1995, Amending Title 66 (public utilities) of the Pennsylvania Consolidated Statutes, (Section 2802(15))

19. I myself acted consistently on the basis of such an understanding when I was Chairman of the New York Public Service Commission; I cannot recall the notion ever crossing my mind that I was not obliged, if not month by month or even year by year, to give the companies a reasonable opportunity on average to recover their prudently incurred costs.

20. It is a matter of indifference to me whether this understanding is more accurately characterized as a commitment of constitutional or quasi-constitutional force or merely good regulatory policy. It is not good policy for any agency of government to play a game of heads-we-win, tails-you-lose with private investors on whom we depend for the performance of important economic functions—opportunistically holding them to a return on investments valued at original cost or at competitive market value, whichever produces the lower result—unless it makes arrangements explicitly intended to compensate them for the risk of that kind of asymmetrical treatment. This injunction is all the more compelling where, as in Missouri, the controlling statute continues to impose on the utility companies the obligation to play the role of supplier of last resort. I observe also, with satisfaction, that in the very case in which the U.S. Supreme Court sustained a Commission's disallowance of (a small portion of) utility company costs on the ground that the assets in question were not used and useful and their disallowance did not jeopardize the ability of the Company to provide service, it also explicitly warned against commissions changing the rules opportunistically:

> a State's decision to arbitrarily switch back and forth between methodologies in a way which required investors to bear the risk of bad investments at some times while denying them the benefit of good investments at others would raise serious constitutional questions. But the instant case does not present this question. At all relevant times, Pennsylvania's rate system has

> been predominantly, but not entirely based on historical cost and it has not been shown that the rate orders as modified by Act 335 fail to give a reasonable rate of return on equity given the risks under such a regime.[7]

21. Honoring the traditional, historical arrangement clearly has an economic function as well; and a unilateral breach of that practice by a regulatory commission cannot but have economic costs. The economic underpinning of traditional regulation was the recognition that if investors were promised a reasonable opportunity to recover their prudently incurred costs, the utilities' ability to attract capital in the future would be ensured. No one can say with confidence what the effect would be on the ability of public utility companies, operating hitherto with this understanding, if prudently incurred costs (more precisely, costs not found imprudent) were now to be ignored and commissions were instead to base regulated rates on some such conception as the Commission's version of TELRIC. This much, at least, seems undeniable. First, the experience of having had the rules of the regulatory game changed in such a way as to deny the incumbent LECs recovery of costs that they had been entitled to recover under the preceding regulatory regime cannot but diminish their incentive to engage in such investments in the future.

22. This might be regarded as a matter of indifference—from the strictly economic standpoint—if any consequent reduction in investments by the incumbent companies in our telecommunications infrastructure could reliably be expected to be filled by new entrants. This would be particularly true if, never having been regulated from the outset, they faced no such possibility of a changing of the rules of the game to their disadvantage in the future. On the

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[7] Duquesne Light Co. v. Barasch , 488 U.S. 299, 315 (1989).

other hand, as I have already observed, a decision by the Commission to set rates for network components and access services at bare cost—blank slate TELRIC or other—can have the effect only of discouraging investments that would otherwise be made.

23. The problems raised by the Commission's determination are not confined to its effect on the incentives of both incumbent and competitive LECs to invest in the modernization of our telecommunications infrastructure. Even more directly and obviously, it would inevitably impair drastically the ability of the incumbents to do so. SWB tells me that it has spent in excess of $300 million annually in Missouri maintaining and upgrading its network. A reduction in the flow of revenues to it on the order of $285 million annually, such as it estimates would be the consequence of the Commission's order if all of its current customers were served with unbundled network elements, cannot but severely diminish its ability to finance such investments.

24. Some of these investments in on-going modernization could still be financed with external funds; but the higher cost of external financing via the capital markets[8] would make some otherwise viable investment projects uneconomic. This diminution of investment by LECs would be further exacerbated by the higher cost of capital caused by the increased

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> "The costs we have outlined make external financing of any form—be it debt or equity—more expensive than internally generated funds. Given those costs, companies prefer to fund investments with retained earnings if they can.
>
> "The key to making good investments is generating enough cash internally to fund those investments; when companies don't generate enough cash, they tend to cut investments more drastically than their competitors do."

Kenneth A. Froot, David S. Sharfstein and Jeremy C. Stein, "A Framework for Risk Management," Harvard Business Review, November-December 1994, pp. 94, 92.

perception of regulatory risk, consequent on regulators having changed the rules of the game in this way.

III. CONCLUSION

25. I have over the last three decades or more been a leading proponent and, in my capacity as Chairman of the New York Public Service Commission, practitioner of marginal or incremental cost pricing of public utility services.[9] But, as a proponent also of original cost or prudent investment regulation, I have also consistently recognized that these marginal cost principles were applicable preponderantly to the design of rate *structures*, leaving regulators with the burden of designing structures that would comply with the total revenue constraint (i.e., afford the companies a reasonable opportunity to recover their total actual costs—neither more nor less) with minimal sacrifice of economic efficiency—by such methods as Ramsey pricing or multi-part tariffs.[10] The temptation of regulators to set rates uniformly at incremental cost alone, at such times as those costs are below average revenue requirements (or "actual costs," as SWB terms them), is understandable, just as was the determination of regulators (including me) to resist letting rates *rise* to incremental costs or competitive levels in the 1970s and early 80s, when those levels exceeded average revenue requirements based on original costs. But it is a temptation that a responsible government resists, especially when a price cap

[9] See my *The Economics of Regulation*, especially Vol. I, *Economic Principles*. See also my "An Economist at Work on Utility Rate Regulation," three articles, *Public Utilities Fortnightly*, January 5, January 19 ("Applications of Economics to Utility Rate Structures") and February 2, 1978.

[10] See my *Economics of Regulation*, Vol. 1, Chapters 5-6 and the January 19, 1978, *Public Utilities Fortnightly* article cited above.

mechanism is in effect and the company has no method of recovering its losses. As I have put it elsewhere,

> even though we cannot find an objective measure of the cost of regulators playing 'head-we-win, tails-you-lose,' giving investors original cost or market value, franchised monopoly or competition—whichever produces the lower price—there is an escapable question of the extent to which governments can change rules in this way consistently with a healthy market economy.[11]

[11] "Thirteen Steps to Reconciliation," *Regulation*, 1996, no. 4 pp. 14-16.

Further, affiant sayeth not,

Alfred E. Kahn

STATE OF MISSOURI)
) SS
CITY OF ST. LOUIS)

Subscribed and sworn to before me this 13th day of August, 1997.

Notary Public

DELORES S. HARING
Notary Public, State of New York
No. 4766345
Qualified in Tompkins County
Commission Expires June 30, 1998

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the matter of AT&T Communications of the Southwest, Inc.'s Petition for Arbitration Pursuant to Section 252(b) Of the Telecommunications Act of 1996 To Establish an Interconnection Agreement with Southwestern Bell Telephone Company	)	Case No. TO-97-40
Petition of MCI Telecommunications Corporation and Its Affiliates, Including MCImetro Access Transmission Services, Inc. for Arbitration and Mediation Under the Federal Telecommunications Act of 1996 of Unresolved Interconnection Issues with Southwestern Bell Telephone Company	)	Case No. TO-97-67

AFFIDAVIT OF J. MICHAEL MOORE

I, J. Michael Moore, of lawful age, being duly sworn, depose and state:

1. My name is J. Michael Moore. I am presently District Manager-Cost Analysis for Southwestern Bell Telephone Company (SWBT). My qualifications and work history are included in my prefiled direct testimonies in TO-97-40 & TC-97-67.

COST STUDY IMPACTS OF THE ARBITRATION AWARD

2. In response to the Final Arbitration Order issued on July 31, 1997, I have examined the impact of the various recommendations made by Staff and adopted by the Commission. While SWBT does not agree with all of the adjustments proposed by the Staff and

adopted by the Commission, the primary purpose of this Affidavit is to demonstrate the impact of the adjustments resulting from the depreciation rate and fill factor recommendations. The impacts of those recommendations, specifically with regards to SWBT's Unbundled 8dB loop cost study, are illustrated on a statewide basis as follows:

Unbundled 8dB Statewide Average Unit Cost

(1) SWBT Revised Cost With Staff Recommendations	$14.47
(2) Same Cost With SWBT Depreciation Factor	$14.56
(3) Same Cost With SWBT Actual Fill	$16.26
(4) Same Cost With SWBT Depreciation and Actual Fill	$16.35

Result (1)

The first figure represents the costs for an 8dB unbundled loop as determined using all of the adjustments proposed by Staff. After adding in joint and common cost allocation, this is the price which the Commission has adopted as a permanent price.

Result (2)

The second figure represents the cost for an 8dB unbundled loop as using all of the adjustments proposed by Staff, with the exception of depreciation. In this circumstance, SWBT has replaced the depreciation factor, that would result from the Staff recommendation, with the depreciation factor that SWBT proposes. Once this factor was replaced, the costs were recalculated using the modified factor. The depreciation expenses as well as the total monthly cost are what SWBT believes reflects an appropriate depiction of its forward-looking depreciation, assuming that all other

recommended factors are not at issue. Such expenses are calculated based an equal life group (ELG) methodology for calculating depreciation.

Result (3)

The third figure represents the cost as determined using all of the adjustments proposed by Staff, with the exception of fill factors. In this circumstance, SWBT has replaced the fill factors, that would equate to staff-recommended fills, with those that SWBT has proposed. Once these factors were replaced, the costs were recalculated using the modified factors. The resulting monthly costs are what SWBT believes reflect an appropriate depiction of forward-looking fill, assuming all other recommended factors are not at issue. The fills that SWBT recommends represent what it believes is to be expected on a forward-looking basis. SWBT would also take issue with Staff in this circumstance and rebut its statement, "SWBT opposes the use of forward-looking fill factors." SWBT, at no time, has opposed the use of forward-looking fill factors and has, in fact, proposed that forward-looking fills are most represented by the actual fills that it currently experiences. Furthermore, in data requests responded to by SWBT, it has reiterated this to be the case and has explained that there is no data that would support a claim that forward-looking fill would change substantially over what SWBT currently experiences.

Result (4)

The fourth figure represents the cost as determined using all of the adjustments proposed by Staff with the exception of both depreciation and fill. The calculation of this cost and SWBT's position on these inputs are described above.

3. Although I have described only the impacts that the Commission's recommendations have upon SWBT's 8dB unbundled loop results, a similar impact would occur on all other types of loops and subloops detailed in the Final Arbitration Order.

4. The modification to SWBT's cost studies in the areas of depreciation and fill factors would also impact the costs for Dedicated Transport. The adjustments to depreciation and fill factors cause the rates for all transport elements to be well below both the actual cost based on historical costs and the costs determined under an appropriate forward-looking cost methodology.

5. The reasons the depreciation method adopted by the Commission fails to constitute an appropriate forward-looking methodology are explained in the Affidavit by John Lube.

6. The primary reasons the fill factors adopted by the Commission do not constitute an appropriate forward-looking cost methodology are as follows:

   A. The fill factors utilized in the Unbundled Loop and Subloop studies reflect SWBT's actual cable and electronics utilization rates. SWBT developed these fill factors by using current company records to calculate the percent of working loops to available loops. These fill factors represent average fills that take into account the varying fill rates that exist in an area as 1) cable reaches exhaustion and requires growth-relief jobs, 2) growth-relief jobs are initiated and they begin offering fill relief, or 3) growth-relief jobs reach completion and fill reaches a level of

stabilization. SWBT's actual fill serves as an accurate depiction of the continuum of fill activity that occurs in an area as a result of the growth-relief life cycle.

B. The fill factors utilized in the Dedicated Transport Studies reflect SWBT's actual cable and electronics utilization rates. SWBT obtained these fill factors from Network experts who assessed the interoffice equipment and facilities that comprise SWBT's networks in Missouri. These fills represent an average fill that takes into account the varying fill rates that exist in all areas as: 1) fiber and equipment reaches exhaustion and requires growth-relief job, 2) growth-relief jobs are initiated and they begin offering fill relief, or 3) growth-relief jobs reach completion and fill reaches a level of stabilization.

7. There are several other miscellaneous cost issues that must be addressed concerning the Final Arbitration Order.

A. The adopted prices for Dark Fiber have been incorrectly stated on a "per-mile" basis. This should be corrected as the costs were developed on a "per-foot" basis.

B. Adopted nonrecurring charges were based on SWBT's costs divided by two. This is simply improper and will result in the significant underrecovery of UNE costs. The development of nonrecurring costs includes the reporting of the time that it takes to perform various activities involved in providing UNEs. The subject matter experts that have reported the nonrecurring resources are individuals that are involved with, and have first had knowledge about, the times and motions involved in provisioning UNEs. The fact that a "text-book" time and motion study was not used to develop these costs cannot possibly serve as the basis for cutting the cost in half, as proposed by Staff.

C. The adopted subloop prices must include a reference to prices, as developed on an individual case basis, for the connection of feeder or distribution facilities to LSP facilities. The incremental cost study for subloop elements does not include the costs associated with such arrangements. Neither anticipated interface nor standards have been developed for such arrangements at this time. It is not known at this time how each individual LSP will connect to SWBT's loop facilities, and since such various arrangements cannot be anticipated, costs can only be determined and recovered at the time in which the LSP and SWBT can confirm the appropriate connecting arrangement.

8. Revised results will need to be provided for the Missouri Unbundled Subloop Cost Study. The current results reflect an error in the assignment of rate group costs to zones. A correction will be made to the study that will re-map rate groups A, B, C, and D to the correct corresponding geographic zones. Additionally, the current subloop results do not include pole and conduit costs. A correction will be made to add pole and conduit costs to the loop cost. These corrections will be made and the corrected study will be submitted to Staff by August 29, 1997.